

ARRANGEMENT

BETWEEN

**THE UNITED STATES NUCLEAR REGULATORY COMMISSION
(USNRC)**

AND

**THE HEALTH AND SAFETY EXECUTIVE OF GREAT BRITAIN
(THE EXECUTIVE)**

**FOR THE EXCHANGE OF TECHNICAL INFORMATION
AND COOPERATION IN NUCLEAR SAFETY MATTERS**

March 12, 2008

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The United States Nuclear Regulatory Commission (hereinafter called the USNRC) and The Health and Safety Executive of Great Britain (hereinafter called the Executive);

Having a mutual interest in a continuing exchange of information pertaining to regulatory matters and of standards required or recommended by their organizations for the regulation of safety and environmental impact of nuclear facilities;

Both the USNRC and the Executive (hereinafter called individually a Participant and collectively the Participants), or their predecessors, having cooperated under the terms of a five-year Arrangement for the exchange of technical information and cooperation in the development of safety standards, originally signed on March 13, 1975, such Arrangement including provision for its extension as mutually decided upon by the Participants;

Having already extended cooperation under similar Arrangements for five-year periods on May 15, 1981, April 7, 1986, September 18, 1996, and September 16, 2002;

Having indicated their mutual desire to continue the cooperation so established for another five years;

Have reached the following understandings:

I. SCOPE OF THE ARRANGEMENT

A. Technical and Other Information To Be Exchanged

To the extent that the USNRC and The Executive are permitted to do so under the laws, regulations, and policy directives of their respective countries, the Participants will, exchange the following types of technical information on matters pertaining to the regulation of safety, security, waste management, and environmental impact of civilian nuclear energy facilities and to nuclear safety research programs, except as provided in paragraph I.B. of this Arrangement:

1. Reports, studies, and assessments emanating from, and actions and decisions taken by, the USNRC or The Executive, as the case may be, relating to or which may affect the safety aspects of design, construction, commissioning, operation, or decommissioning, or the licensing or regulatory control, of nuclear installations in general in the United States of America or, as the case may be, in Great Britain, specified by the recipient of the information (hereinafter referred to as "specified installations");
2. Information imparted to the USNRC or The Executive, as the case may be, by operators of specified installations or by any other persons relating to the safety aspects of design, construction, commissioning, operation, or decommissioning, or the licensing or regulatory control of those installations;
3. Reports of, and information concerning, hearings and inquiries whether judicial or not, relating to or which may affect any aspect of nuclear safety or have a bearing on the safety aspects or the construction or operation of nuclear installations in the countries of the Participants to this Arrangement;
4. Information in the field of confirmatory nuclear safety research which the Participants have the right to disclose, which is either in the possession of one of the Participants or which is available to it. Cooperation in research areas may require a separate arrangement, if determined to be necessary by the research organizations of one or both of the Participants. Each Participant will transmit immediately to the other information concerning safety research results that requires early attention in the interest of public safety, along with an indication of significant implications.

B. Right of Refusal

Either Participant may refuse to provide any particular information or information in general if:

1. that Participant, in its absolute discretion, considers that the production of such information might prejudice its national security, should be withheld in the public interest, or may be commercially damaging; or
2. the information requested concerns a matter falling outside the field of responsibility of the USNRC or The Executive, as the case may be.

C. Cooperation in Safety Research

The execution of joint programs and projects, or those programs and projects under which activities are divided between the two Participants, including the use of test facilities and/or computer programs owned by either Participants, will be decided upon on a case-by-case basis and may be the subject of a separate arrangement, as determined to be necessary by one or both of the Participants. Other times, when not the subject of a separate arrangement, it will be accomplished by an exchange of letters between the Participants, subject at least to the terms and conditions of the present Arrangement. Technical areas specified by such exchanges of letters may be subsequently modified by mutual consent.

D. Personnel Exchanges

Temporary assignments of personnel from one Participant to the other Participant will be considered on a case-by-case basis.

II. ADMINISTRATION

- A. The exchange of information under this Arrangement will be accomplished through correspondence, technical reports, experimental data, newsletters, and other documents; by visits and meetings of joint experts which will be arranged in advance; and by such other means as the Participants mutually decide upon. Meetings will be held at such other times as the Participants decide to review the exchange of information, to recommend revisions to the provisions of the Arrangement to improve and develop the cooperation, and to discuss topics within the scope of the exchange. The time, place, and agenda for such meetings will be mutually decided upon in advance.

- B. A Technical Liaison Officer will be designated by each Participant to coordinate its participation in the overall exchange. The Technical Liaison Officer will be the recipient of all documents transmitted under the exchange, including copies of all letters unless otherwise decided. Within the terms of the exchange, the Technical Liaison Officer will be responsible for developing the scope of the exchange, including deciding upon the designation of the nuclear energy installations subject to the exchange, and on specific documents and information to be exchanged. One or more technical coordinators may be appointed as direct contacts for specific disciplinary areas. The technical coordinators will assure that the Technical Liaison Officer receives copies of all transmittals. These detailed arrangements are intended to assure, among other things, that a reasonably balanced exchange providing access to equivalent available information from both sides is achieved and maintained.
- C. Visits which take place under the Arrangement, including their schedules, will have the prior approval of the Technical Liaison Officer referred to in paragraph II.B.
- D. The Technical Liaison Officer will determine the number of copies to be provided of the documents exchanged. Each document will be accompanied by an abstract, 250 words or less, describing its scope and content.
- E. Information furnished by one Participant to the other Participant under this Arrangement will be accurate to the best knowledge and belief of the Participant supplying the information. However, the application or use of any information exchanged or transferred between the Participants under this Arrangement will be the responsibility of the receiving Participant, and the transmitting Participant does not warrant the suitability of such information for any particular use or application. The Participants make no warranties, whatsoever, for the ability or suitability of any analytical code or other analytical technique to perform in any manner for any purpose, or to accomplish any particular task. The Participants accept no liability for damages of any type and howsoever arising that may result from the use of their codes or other analytical techniques provided under this Arrangement.
- F. Recognizing that some information of the type covered in this Arrangement is not available within the Participants to this Arrangement but is available from within the government departments or other agencies of the respective Participants countries, each Participant will assist the other to the maximum extent possible by organizing visits and directing inquiries concerning such information to the appropriate departments or agencies of the Government concerned. The foregoing will not in any way constitute a commitment of those departments or agencies to furnish such information or to receive such visitors.

- G. Nothing contained in this Arrangement will require either Participant to take any action which would be inconsistent with its laws, regulations, and policy directives. Should any conflict arise between the terms of this Arrangement and those laws, regulations, and policy directives, the Participants will consult before any action is taken. No nuclear information related to proliferation-sensitive technologies will be exchanged under this Arrangement.
- H. Unless otherwise mutually decided, each Participant will bear the costs incurred by it in implementing the present Arrangement. The ability of the Participants to carry out this arrangement is subject to the appropriation of funds by the appropriate governmental authority and to laws and regulations applicable to the Participants.

III. EXCHANGE AND USE OF INFORMATION

A. General

The Participants support the widest possible dissemination of information provided, created or exchanged under this Arrangement, subject to the requirements of each Participant's national laws, regulations, and policies and the need to protect proprietary and other sensitive or privileged information, and subject to the provisions of the Intellectual Property Addendum, which forms part of this Arrangement. All information protected by provisions of this Arrangement as proprietary, confidential, privileged, or otherwise subject to restriction on disclosure will remain so protected for the duration of this Arrangement and after the Arrangement is expired or terminated, unless mutually decided otherwise in writing.

B. Definitions

1. The term "information" means unclassified nuclear energy-related regulatory, safety, security, waste management, scientific or technical data, including information on results or methods of confirmatory assessment, research, and any other knowledge provided, created or exchanged under this Arrangement.
2. The term "proprietary information" means information created or exchanged under this Arrangement which contains trade secrets or other privileged or sensitive commercial information (such that the person having the information may derive a commercial benefit from it or may have a commercial advantage over those who do not have it), and may only include information which:

- a. has been held in confidence by its owner;
 - b. is of a type which is customarily held in confidence by its owner;
 - c. has not been transmitted by the owner to other entities (including the receiving Participant) except on the basis that it be held in confidence;
 - d. is not otherwise available to the receiving Participant from another source without restriction on its further dissemination; and
 - e. is not already in the possession of the receiving Participant.
3. The term "other confidential or privileged information" means non-classified information, other than "proprietary information," which has been transmitted and received in confidence under this Arrangement and is protected from public disclosure under the laws, regulations, or policies of the country of the Participant providing the information, or is otherwise restricted by the provider.

C. Marking Procedures for Documentary Proprietary Information

A Participant receiving documentary proprietary information pursuant to this Arrangement will respect the privileged nature of such information, provided that such proprietary information is clearly marked with the following (or substantially similar) restrictive legend:

"This document contains proprietary information furnished in confidence under an Arrangement dated March 12, 2008, between the Nuclear Regulatory Commission of the United States of America and the Health and Safety Executive of Great Britain and will not be disseminated outside these organizations, their consultants, contractors, and licensees, or concerned departments and agencies of the Government of the United States of America and the Government of the United Kingdom without the prior written approval of (name of transmitting participant). This notice will be marked on each page of any reproduction hereof, in whole or in part. These limitations will automatically terminate when the proprietary information is disclosed by the owner without restriction."

This restrictive legend will be respected by the Participants to this Arrangement. Proprietary information bearing this restrictive legend will not be made public or otherwise disseminated in any manner unspecified or contrary to the terms of this Arrangement without the prior written consent of the transmitting Participant. Proprietary information bearing this restrictive legend will not be used by the receiving Participant or its contractors and consultants for any commercial purposes without the prior written consent of the transmitting Participant.

D. Dissemination of Documentary Proprietary Information

1. In general, documentary proprietary information received under this Arrangement may be disseminated by the receiving Participant without prior consent to persons within or employed by the receiving Participant, and to concerned Government departments and Government agencies in the country of the receiving Participant, provided that:

 - a. such dissemination is made on a case-by-case basis to persons or departments and agencies having a legitimate need for the proprietary information; and
 - b. such proprietary information will bear the restrictive legend appearing in Section III.C. of this Arrangement.
2. Documentary proprietary information received under this Arrangement may be disseminated by the receiving Participant without prior consent to contractors and consultants of the receiving Participant located within the geographical territory over which that Participant's area of authority extends, provided:

 - a. that the Participant acts to ensure the use of that proprietary information by such contractors and consultants only for work within the scope of their contracts with the receiving Participant relating to the subject matter of the proprietary information, and that it will not be used by such contractors and consultants for any other private commercial purposes; and
 - b. that such dissemination is made on a case-by-case basis to contractors and consultants having a legitimate need for the proprietary information and who have executed a non-disclosure agreement; and
 - c. that such proprietary information bears the restrictive legend appearing in Section III.C. of this Arrangement.
3. With the prior written consent of the Participant furnishing documentary proprietary information under this Arrangement, the receiving Participant may disseminate such proprietary information more widely than otherwise permitted under the terms set forth in this Arrangement. The Participants will endeavor to grant such approval to the extent permitted by their respective national laws, regulations and policies, provided:

- a. that the entities receiving proprietary information under Section III.D.3. of this Arrangement, including domestic organizations permitted or licensed by the receiving Participant to construct or operate nuclear production or utilization facilities, or to use nuclear materials and radiation sources, have a legitimate need for the proprietary information and have executed a non-disclosure agreement; and
- b. that the entities receiving proprietary information under Section III.D.3. of this Arrangement, including domestic organizations permitted or licensed by the receiving Participant to construct or operate nuclear production or utilization facilities, will not use such proprietary information for any private commercial purposes; and
- c. that those entities receiving proprietary information under Section III.D.3. of this Arrangement that are domestic organizations permitted or licensed by the receiving Participant, will use the proprietary information only for activities carried out under or within the terms of their specific permit or license.

E. Marking Procedures for Other Confidential or Privileged Information of a Documentary Nature

A Participant receiving under this Arrangement other confidential or privileged information will respect its confidential nature, provided such information is clearly marked so as to indicate its confidential or privileged nature and is accompanied by a statement indicating:

- 1. that the information is protected from public disclosure by the government of the transmitting Participant; and
- 2. that the information is transmitted under the condition that it be maintained in confidence.

F. Dissemination of Other Confidential or Privileged Information of a Documentary Nature

Other confidential or privileged information may be disseminated in the same manner as that set forth in Section III.D, "Dissemination of Documentary Proprietary Information."

G. Non-Documentary Proprietary or Other Confidential or Privileged Information

Non-documentary proprietary or other confidential or privileged information provided in seminars and other meetings organized under this Arrangement, or information arising from the attachments of staff, use of facilities, or joint

projects, will be treated by the Participants according to the principles specified for documentary information in this Arrangement; provided, however, that the Participant communicating such proprietary or other confidential or privileged information has placed the recipient on notice as to the character of the information communicated.

H. Consultation

If, for any reason, one of the Participants becomes aware that it will be, or may reasonably be expected to become, unable to meet the non-dissemination provisions of this Arrangement, it will as soon as reasonably practicable inform the other Participant. The Participants will thereafter consult each other to define an appropriate course of action.

I. Other

Nothing contained in this Arrangement will preclude a Participant from using or disseminating information received without restriction by a Participant from sources outside of this Arrangement.

J. Dispute Resolution

Cooperation under this Arrangement will be carried out by each Participant in a manner consistent with the relevant laws and regulations of the respective countries. Any dispute or question between the Participants concerning the interpretation or application of this Arrangement arising during its term will be settled by consultation between the Participants.

IV. INTERPRETATION

For the purpose of the present Arrangement:

- A. "Nuclear installation" in relation to facilities within Great Britain has the meaning assigned to it in the Nuclear Installations Act of 1965 and the Nuclear Installations Regulations of 1971, but excludes any installation operated by or for any Government Department; and in relation to facilities within the United States of America means installations at which licensed activities, as provided for in the Atomic Energy Act of 1954 and the Energy Reorganization Act of 1974, as amended, are conducted.

- B. "Operator" in relation to Great Britain means a licensee within the meaning assigned to that term in the Nuclear Installations Act of 1965; and in relation to the United States of America means a person licensed either to operate the licensed installation or to possess nuclear material as provided for in the Atomic Energy Act of 1954 and the Energy Reorganization Act of 1974, as amended.

V. FINAL PROVISIONS

- A. This Arrangement will come into operation upon signature and, subject to paragraph B. of this Section, will remain in operation for a period of five (5) years. It may be extended for a further period of time by mutual decision of the Participants.
- B. Either Participant may withdraw from the Arrangement after providing the other Participant with written notice 180 days prior to its intended date of withdrawal.

Signed at Rockville on this 12th day of March 2008.

FOR THE UNITED STATES
NUCLEAR REGULATORY COMMISSION:

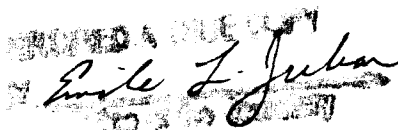


Dr. Dale E. Klein
Chairman

FOR THE HEALTH AND SAFETY
EXECUTIVE OF GREAT BRITAIN



Dr. Mike Weightman
HM Chief Inspector of Nuclear Installations
(Director of the Nuclear Directorate)



ADDENDUM "A"

Areas in Which the USNRC Is Performing or Sponsoring Nuclear Safety Research

1. Reactor Vessel and Piping Integrity
2. Aging of Reactor Components
3. Reactor Equipment Qualification
4. Thermal Hydraulic Code Applications and Maintenance
5. Plant Performance
6. Human Performance
7. Core Melt and Reactor Coolant System Failure
8. Reactor Containment Safety
9. Containment Structural Integrity
10. Seismic Safety
11. Probabilistic Risk Assessment
12. Severe Accident Analysis
13. Radiation Protection and Health Effects
14. Radionuclide Transport and Waste Management
15. Nuclear Fuel Analysis
16. Dry Cask Storage and Transport
17. Decommissioning
18. Advanced Reactor Designs
19. Fire Protection

ADDENDUM "B"

Areas in Which The Executive Is Performing or Sponsoring Nuclear Safety Research

1. Structural Integrity of Reactor Steel Components
2. Safety related integrity and function of Civil Structures
3. Plant Chemistry and Corrosion on Reactors and Fuel cycle plant
4. Reactor fuel behavior during fault conditions
5. Fission product behavior during fault conditions
6. Nuclear Data and Applications in Reactor Physics, Shielding and Criticality
7. Plant Modelling, Thermal Hydraulics and Severe Accidents
8. Seismic Events, Extreme Weather, Aircraft Impacts and Fires
9. Reliability of new technologies in Reactor and Fuel Cycle Plant Protection Systems
10. Human Factors
11. Probabilistic Safety Analysis
12. Radiological Safety
13. Ageing, Degradation and Structural Integrity of GCR Graphite Cores
14. Radioactive Waste Characterisation, Retrieval, Segregation, Passivation and Volume Reduction
15. Plant Decontamination and Effluent Control
16. Waste Immobilization and Novel Encapsulents
17. Waste Packaging and Integrity in long-term storage
18. Plant Dismantling
19. Contaminated Land Remediation

INTELLECTUAL PROPERTY ADDENDUM

As referred to in Section III. of this Arrangement:

The Participants will take such steps as are in their control to adequately and effectively protect the intellectual property created or furnished under this Arrangement and relevant implementing arrangements. The Participants will notify one another in a timely fashion of any inventions or copyrighted works arising under this Arrangement and will also seek protection for such intellectual property in a timely fashion. Rights to such intellectual property will be allocated as provided in this Addendum.

I. SCOPE

- A. This Addendum is applicable to all cooperative activities undertaken by the Participants or by relevant entities (hereafter "cooperative entities") pursuant to this Arrangement, except as otherwise specifically decided by the Participants or their cooperative entities [who are the other cooperative entities?].
- B. For the purposes of this Arrangement, "intellectual property" has the meaning found in Article 2 of the Convention Establishing the World Intellectual Property Organization, done at Stockholm, July 14, 1967, and may include other subject matter as decided by the Participants.
- C. This Addendum addresses the allocation of rights, interests, and royalties between the Participants or cooperative entities. Each Participant will take such steps as are in its control to ensure that the other Participant or cooperative entities can obtain the rights to intellectual property allocated in accordance with the Addendum. This Addendum does not otherwise affect the allocation between a Participant and its nationals, which will be determined by that Participant's laws and practices.
- D. Disputes concerning intellectual property arising under this Arrangement will be resolved through discussions between the cooperative entities concerned or, if necessary, the Participants. Upon mutual agreement of the Participants, a dispute shall be submitted to an arbitral tribunal for binding arbitration in accordance with the applicable rules of international law. Unless the Participants or their cooperative entities decide otherwise in writing, the arbitration rules of the United Nations Commission on International Trade Law (UNCITRAL) shall govern.
- E. Termination or expiration of this Arrangement will not affect the commitments set out in this Addendum.

II. ALLOCATION OF RIGHTS

- A. Each Participant will be entitled to a non-exclusive, irrevocable, royalty-free license in all countries to reproduce, publicly distribute, and translate scientific and technical journal articles, reports, and books directly arising from cooperation under this Arrangement. All publicly distributed copies of copyrighted work prepared under this provision will indicate the names of the authors of the work unless an author explicitly declines to be named. Each Participant or cooperative entity will be entitled to review a translation prior to public distribution.
- B. Rights to all forms of intellectual property, other than those rights described in Section II.A., above, will be allocated as follows:
1. Visiting researchers, for example, scientists visiting primarily in furtherance of their education, will receive intellectual property rights under arrangements with their host institutions. In addition, each visiting researcher named as an inventor will be entitled to treatment as a national of the host country with regard to awards, bonuses, benefits, or any other rewards, in accordance with the policies of the host institution.
 2.
 - (a) For intellectual property created during joint research, the Participants or their cooperative entities will jointly develop a technology management plan. The technology management plan will consider the relative contributions of the Participants and their cooperative entities, the benefits of licensing by territory or for fields of use, requirements imposed by the Participant's domestic law and other factors deemed appropriate. The initial research cooperation arrangement may include the technology management plan for that specific cooperation.
 - (b) If the Participants or their cooperative entities cannot reach arrangement on a joint technology management plan within a reasonable time not to exceed six months from the time a Participant becomes aware of the creation of the intellectual property in question, the Participants or their cooperative entities will resolve the matter in accordance with the provisions of Section I.D. Pending resolution of the matter, such intellectual property will be jointly owned by the Participants or their cooperative entities, but will be commercially exploited (including product development) only by mutual arrangement.
 - (c) A specific program of research will be regarded as joint research for the purposes of this Addendum when it is designated as such in the relevant implementing arrangements. Otherwise, the allocation of rights to intellectual property will be in accordance with Section II.B.1.
 - (d) In the event that either Participant believes that a particular joint research project under this Arrangement will lead to or has led to the creation or furnishing of intellectual property of a type not protected by the applicable laws of one of the Participants, the Participants will as soon as reasonably practicable hold discussions to determine the allocation of rights to the said intellectual property. The joint activities in question will be suspended during the discussions unless otherwise decided by the Participants thereto. If no agreement can be reached within a three month period from the date of the request for discussions, the Participants will cease the cooperation in the project in question.